

CLAIMS

1. A requirement definition method comprising:

(a) a step of extracting all output data items to be finally obtained by computer software which is a development object;

(b) a step of prescribing one of the extracted output data items by a data generation equation and a data generation equation execution condition;

(c) a step of prescribing all new data items by separate data generation equations and data generation equation execution conditions with respect to all the new data items that have appeared in order to prescribe the data generation equation and the data generation equation execution condition in said(b);

(d) a step of repeating the step (c) until the data generation equation is constituted only of an input data item; and

(e) a step of executing the steps (a) to (d) with respect to all the output data items to be finally obtained, and constituting requirement definition by the data generation equation and the data generation equation execution condition obtained as a result of such execution.

2. The requirement definition method according to claim 1, wherein the data items in the step (b) or (c) are also prescribed by an attribute definition of an input/output and explicit indication of a recording medium in which the data item exists in addition to the data.

generation equation and the data generation equation
execution condition, and

wherein further prescription relating to the
attribute definition of the input/output and indication of
the recording medium in which the data item exists is also
regarded as the requirement definition in addition to the
data generation equation and the data generation equation
execution condition in the step (e).

3. A method of automatically developing computer
software, comprising:

(a) a step of obtaining requirement definition
using the requirement definition method according to claim
1 or 2; and

(b) a step of applying such definition to a method
of automatically finding a process order of data items or
automatically establishing data in a correct order to
automatically develop a program based on data items
prescribed in the obtained requirement definition in the
(a), thus obtaining desired software as a result of the
application.

4. A method of changing a requirement word in
changing requirement of a program automatically prepared by
application of such following information to a method
capable of automatically programming irrelevant to an
order of arrangement of prescribed requirement words as
requirement words (= data items) group prescribed as the
requirement of software , the information being prescribed

by:

a name of the word;

a data generation equation (including: obtaining a value by an input) to obtain a value corresponding to the word;

a condition (data generation equation execution condition) on which the value corresponding to the word is established;

an attribute definition indicating whether the word is an input or an output; and

a recording medium in which the word exists, wherein the method of changing the requirement word comprises:

(a) an operation of changing (changing including deleting and adding) prescription of the requirement word itself to be changed;

(b) an operation of extracting first link defining words and first link containing words before and after the change of the requirement word concerned as requirement words having a possibility that prescription change is required by an influence of the change of the prescription of the word of the above (a);

(c) an operation of studying whether or not the change of the prescription is required with respect to the individual extracted words; and

(d) an operation of repeating the operations of the (a) to (c) with respect to the word requiring the

change.

5. A method of newly prescribing a requirement word in new development of a program automatically prepared by application of such information to a method capable of automatically programming irrelevant to an order of arrangement of prescribed requirement words as requirement words (= data items) group prescribed as the requirement of software , the information being prescribed by:

a name of the word;

a data generation equation (including: obtaining a value by an input) to obtain a value corresponding to the word;

a condition (data generation equation execution condition) on which the value corresponding to the word is established;

an attribute definition indicating whether the word is an input or an output; and

a recording medium in which the word exists,

wherein the method of newly prescribing the requirement word, in light of consideration that the new development requires both a new requirement prescription operation and its correction operation, new requirement prescription is therefore regarded as a change from nothing in the new development of the program, comprises:

(a) an operation of changing (changing including deleting and adding) prescription of the requirement word itself to be changed;

(b) an operation of extracting first link defining words and first link containing words before and after the change of the requirement word concerned as requirement words having a possibility that prescription change is required by an influence of the change of the prescription of the word of said (a);

(c) an operation of studying whether or not the change of the prescription is required with respect to the individual extracted words; and

(d) an operation of repeating the operations of said (a) to (c) with respect to the word requiring the change.